

Coastal Hazards Overview: Coastal Hazards Commission and Tools for Communities



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Outline

- Coastal Processes
- Problems
- Responses
- Coastal Hazards Commission
- No Adverse Impact Initiative

Processes: Storm Surge, Flooding & Erosion



Peggotty Beach, Scituate

Problem: Seawalls + Riprap = Narrow Beaches



Long Beach, Rockport

Problem: Infrastructure Behind Failing Seawalls



Winthrop Shore Drive, Winthrop

Response: Elevate Buildings



Cove Street, Mattapoisett

Response: Beach & Dune Nourishment



Long Beach, Barnstable

Coastal Hazards Commission - Charge

- Review existing coastal hazards practices & policies
- Identify data & information gaps
- Draft recommendations for administrative, regulatory & statutory changes

Coastal Hazards Commission – 15 Members

- Susan Snow-Cotter, CZM
- Sen. Therese Murray, Plymouth & Barnstable
- Sen. O'Leary, Cape & Islands
- Sen. Bruce Tarr, 1st Essex & Middlesex
- Rep. Frank Hynes, 4th Plymouth
- Rep. Eric Turkington, Barnstable, Dukes & Nantucket
- Rep. Susan Gifford, 2nd Plymouth
- Rick Armstrong, Seaport Advisory Council
- Rich Zingarelli, DCR-Flood Hazard Mitigation
- Joe Orfant, DCR-Engineering
- John Tommaney, MEMA
- Brad Crate, Administration & Finance
- Arlene O'Donnell, DEP
- David Standley, Ipswich
- Vin Kalishes, Scituate

Coastal Hazards Commission – Working Groups

- Policy
- Planning & Regulations
- Protection
- Hazards Information
- 20-year Infrastructure Plan

Recommendations: Hazards Information

- Partner w/ FEMA to update Flood Insurance Rate Maps



Mapped as C Zone!

Salisbury Beach, Salisbury

Recommendations: Hazards Information

- Compile Coastal Hazards Characterization Atlases



Prepared for:

**Massachusetts Office of
Coastal Zone Management**



Prepared by:

**Applied Coastal Research
and Engineering, Inc.**



- Properties with Multiple Federal Flood Insurance Claims
- Historical Shoreline Change Rate
- Shoreline Type
- Dominant Coastal Processes
- Shoreline Protection Structures
- Beach Width Fronting Coastal Banks

Recommendations: Hazards Information

- Evaluate distribution of coastal hazards & emergency management information
- Collect post-storm data
- Create an online portal to resources, websites, etc.
- Develop standardized Risk & Vulnerability Assessment Maps



Gunning Point Beach, Falmouth

Recommendations: Policy

- Provide outreach to insured & uninsured homeowners
- Increase Guaranty Fund's \$300,000 maximum coverage
- Encourage homeowners to retrofit homes



Peggotty Beach, Scituate

Recommendations: Policy

- Establish model storm resilient communities
- Finalize guidance documents on Executive Orders 149 & 181
- Acquire storm damage prone properties



Cove Street, Mattapoisett

Recommendations: Planning & Regulations

- Develop, update & implement local hazard mitigation plans
- Update State Building Code
- Coordinate local permit review
- Develop performance standards for “Land Subject to Coastal Storm Flowage”
- Hold annual coastal conference



Long Beach, Rockport

Recommendations: Protection

- Conduct a regional sand management study
- Quantify value of beaches
- Map potential sources of sediment for beach nourishment
- Finalize guidance document on assessment of environmental impacts of offshore sediment mining



Deveraux Beach, Marblehead

Recommendations: Protection

- Develop standardized benefit-cost analysis model for shoreline protection projects
- Map potential sources of sediment for beach nourishment
- Finalize guidance document on assessment of environmental impacts of offshore sediment mining
- Coordinate w/ USACE to beneficially reuse dredged material
- Establish technical advisory committee to address innovative erosion-control measures



Long Beach, Barnstable

Recommendations: Infrastructure Plan

- Inventory public structures along coastline
- Prioritize repair or replacement of public structures



Bay Street, Marshfield

Next Steps

- Refine recommendations
- Develop implementation plans
- Prioritize recommendations
- Finalize report
- Present to Legislature

For more information: www.mass.gov/czm



No Adverse Impact

A Common Sense Strategy for Floodplain Management

Association of State Floodplain Managers

www.floods.org

Why No Adverse Impact?

Flood damages are rapidly increasing
unnecessarily!

Current approaches deal primarily with *how to build in a floodplain vs. how to minimize future damages*

No Adverse Impact Explained

NAI is a concept/policy/strategy that broadens one's focus from the built environment to include how changes to the built environment potentially impact other properties.

NAI broadens property rights by protecting the property rights of those that would be adversely impacted by the actions of others.

No Adverse Impact Defined

Activities that could adversely impact flood damage to another property or community will be allowed only to the extent that the impacts are mitigated or have been accounted for within an adopted community-based plan.

No Adverse Impact Roles

Local government is the key

- Develop and adopt NAI community-based plans
- Adopt NAI strategies
- Educate citizens on the “Good Neighbor Policy”



Community Activities that can Incorporate NAI:

- Hazard Identification
- Education and Outreach
- Planning
- Regulations and Standards
- Mitigation Actions
- Infrastructure
- Emergency Services

CONCLUSION

Current Approaches Create Future Disasters

If we continue to encourage at-risk development and ignore the impact to others, can we accept the consequences...

... and, are you willing to pay for it?

Questions?

- Coastal Hazards Commission:
www.mass.gov/czm
- South Shore Coastal Hazards Atlas and
Shoreline Change Project: www.mass.gov/czm
- No Adverse Impact: The Association of State
Floodplain Managers, www.floods.org